South Central College

AST 1112 Introduction to Auto Service

Course Outcome Summary

Course Information

Description
This course is a requisite for the Automotive Service program. The course will include the following topics: shop safety, shop practices and procedures, vehicle identification, use of electronic service information, proper use of hand tools, power tools, hoist and other shop equipment, basic fasteners, tires, lubricants and fluids.

Total Credits 2
Total Hours 48

Types of Instruction

Instruction Type Credits/Hours
Lecture
Lab

Pre/Corequisites
Admission into the Automotive Service program

Institutional Core Competencies

Critical and Creative Thinking - Students will be able to demonstrate purposeful thinking with the goal of using a creative process for developing and building upon ideas and/or the goal of using a critical process for the analyzing and evaluating of ideas.

Course Competencies

1. Exhibit professionalism and demonstrate proper shop safety procedures
   Learning Objectives
   Demonstrate professional conduct, act responsibly and accept responsibility for the successful and timely completion of assignments
   Identify and explain safety considerations, demonstrate proper safety procedures
   Explain Material Safety Data Sheets
   Describe the correct use and operation of fire extinguishers

2. Follow required shop operating procedures
   Learning Objectives
   Identify, explain and follow shop operating procedures and practices
   Complete customer work authorization form
Create a service order identifying the customer, vehicle and work to be performed
Prepare a parts request form identifying the customer, service order and the required parts

3. **Demonstrate effective use of the electronic service information and service order writing system**

   **Learning Objectives**
   - Locate and explain vehicle identification and major component identification numbers.
   - Locate and follow all applicable service information procedures, precautions and service bulletins
   - Analyze vehicle specifications
   - Complete work order to include customer information, vehicle identifying information, customer concern, related service history, cause, and correction.

   Prepare a written estimate

4. **Demonstrate the correct and safe use of tools and equipment**

   **Learning Objectives**
   - Demonstrate the correct and safe use of a hoist, oxy-acetylene torch, flaring tools, drills, cutting tools, threading tools, battery charges, tire machines and various other tools and equipment
   - Start a vehicle using jumper cables or an auxiliary power supply.

5. **Explain types of threads and demonstrate thread tapping procedure, identify and demonstrate double wall and ISO flaring**

   **Learning Objectives**
   - Identify bolt diameter, bolt hardness, threat pitch and demonstrate the correct tapping of threads
   - Explain the types of flares use in vehicles and demonstrate the correct procedure for flaring a steel line

6. **Identify and explain various types of automotive fluids and tire construction**

   **Learning Objectives**
   - Research the correct lubricant and fluid types for a specific vehicle
   - Demonstrate proper fluid level checking and coolant testing procedures
   - Identify and explain types of tires, tire dimensions, and construction
   - Demonstrate tire inspection, inflation, removal, repair and balancing procedures

**SCC Accessibility Statement**

South Central College strives to make all learning experiences as accessible as possible. If you have a disability and need accommodations for access to this class, contact the Academic Support Center to request and discuss accommodations. North Mankato: Room B-132, (507) 389-7222; Faribault: Room A-116, (507) 332-7222.

Additional information and forms can be found at: [www.southcentral.edu/disability](http://www.southcentral.edu/disability)

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